

IN THE CLAIMS:

Please cancel claim 14 without prejudice to or disclaimer of the subject matter recited therein.

Please amend claims 1, 12, and 13 and add new claim 15 as follows:

LISTING OF CURRENT CLAIMS

1. (Currently Amended) A high-security encoding device for remote controller, comprising:

a timer used to provide a transmitting time and a time-between-operations;

a mode selector used to provide a mode select value;

5 a controller, by which an identity, said transmitting time, said time-between-operations, and said mode select value are received to generate a control signal;

a key;

an encryptor, which receives said control signal and applies said key to encrypt said control signal to a ciphertext; and

10 a RF modulator, which modulates and outputs said ciphertext.

2. (Original) The high-security encoding device for remote controller as recited in claim 1, wherein said timer is a 32 bits timer.

3. (Original) The high-security encoding device for remote controller as recited in claim 1, wherein said key is a 64 bits key.

4. (Original) The high-security encoding device for remote controller as recited in claim 3, wherein said key is stored in a non-volatile memory.

5. (Original) The high-security encoding device for remote controller as recited in claim 1, wherein said transmitting time is four bytes in length, which is used to check whether time difference between the timer of the encoding device and the timer of the associated encoding device is within a tolerance time.

6. (Original) The high-security encoding device for remote controller as recited in claim 1, wherein said mode select value is 2 bytes in length, by which a mode is chosen among the normal mode, emergency mode, and synchronized mode according to actual need.

7. (Original) The high-security encoding device for remote controller as recited in claim 1, wherein said identity is 2 bytes in length, which is used for testing and verifying the associated decoding device.

8. (Original) The high-security encoding device for remote controller as recited in claim 1, wherein said control signal is represented as plaintext

9. (Original) The high-security encoding device for remote controller as recited in claim 1, wherein said ciphertext is encrypted using a symmetric key with 64 bits in length.

10. (Original) The high-security encoding device for remote controller as recited in claim 1, wherein an initial value of said timer is a random number.

11. (Original) The high-security encoding device for remote controller as recited in claim 10, wherein said timer is realized by a logic circuit

12. (Currently Amended) The high-security encoding device for remote controller as recited in claim 10, wherein said timer is realized by ~~the~~a single-chip timing-interrupt method.

13. (Currently Amended) A high-security encoding device for remote controller, comprising:

a timer, which is used to provide a transmitting time and a time-between-operations, and said timer only timing a few seconds while said encoding device for remote controller is actuated in order to save electricity;

a mode selector, which is used to provide a mode select value;

a controller, by which an identity, said transmitting time, said time-between-operations, and said mode select value are received to generate a control signal;

a key;

10 an encryptor, which receives said control signal and applies said key to encrypt said control signal into a ciphertext; and

a RF modulator, which modulates and thereafter outputs said ciphertext.

14. (Cancelled)

15. (New) An operating method using a high-security encoding device for a remote controller comprising:

activating an encoding device;

activating a timer of said encoding device to provide a transmitting time;

5 encrypting said transmitting timing, an identity of said timer, and a compelling synchronized mode value while sending out to an external decoding device to enable said decoding device to carry out a synchronized action;

evaluating whether or not said decoding device is activated once again during a period of time by determining a time-between-operations;

10 if not, then stop timing, but a final timing value is still stored in memory; and

if yes, then an encrypted signal containing no said compelling synchronized mode value is sent.